

(NOTE: This does not need to be forecast as foreign conference travel since it came in through the Speakers' Bureau and I will be giving this talk on my own time. However, since it reports on work related to JPL, I need to have clearance for this abstract. There will not be a paper out of this; I will be giving a 90-minute lecture only, which will be translated into Spanish in real time.)

Abstract

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(ITESM)

Software Re-Engineering: A Case Study

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A case study will be presented, illustrating issues and solutions related to software re-engineering.

Object-oriented design and coding were used in re-engineering a program called SEQ GEN. Earlier versions of the program were hosted on a mainframe computer, and were each specific to a particular flight project. The new version is multi-mission, and is hosted on a workstation. The talk will describe the design process used, the style of documenting the design, the management of the design and coding, and some lessons learned concerning C++ coding.

SEQ GEN is a category A program used in planning the sequence of activities requested to be done by the spacecraft. The program displays a sequence in graphical timeline format on a workstation's screen. When the user changes details of a requested activity in the sequence, the new version is expanded into the implied spacecraft commands, and the timeline is updated.

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